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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/643,921	08/23/2000	Wilf LeBlanc	36795/CAG/B600	2488

23363 7590 05/21/2004  
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EXAMINER

SWERDLOW, DANIEL

ART UNIT PAPER NUMBER

2644

DATE MAILED: 05/21/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

8

## Office Action Summary

Application No.

09/643,921

Applicant(s)

LEBLANC ET AL.

Examiner

Daniel Swerdlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-108 is/are pending in the application.
- 4a) Of the above claim(s) 5-16, 21-32, 34, 38-48, 53-62, 67-76, 81-92 and 97-108 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 17-20, 33, 35-37, 49-52, 63-66, 77-80 and 93-96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6.9.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Claims 1-4, 17-20, 33, 35-37, 49-52, 63-67, 77-80 and 93-96 in Paper No. 11 is acknowledged.
2. Due to a typographical error in the prior Office action, examiner incorrectly included Claim 34 in the Group I, which was subsequently elected by applicant. This claim was also correctly included in Group IV. Examiner received clearance to remove Claim 34 from the elected group in a telephone conversation with applicant's representative, Mr. Raymond R. Tabandeh, reg. no. 43,945 on 13 May 2004.

### ***Drawings***

3. The drawings are objected to because:
  - Margins are incorrect. See 37 CFR 1.84 (g).
  - Size of numbers, letters, and reference characters is incorrect. See 37 CFR 1.84 (p) (3).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 17, 33, 49, 63, 77 and 93 rejected under 35 U.S.C. 102(b) as being anticipated by Cox et al. (US Patent 5,790,781).

6. Regarding Claim 1, Cox discloses **a method for dynamically scaling processor cycle consumption of tasks (i.e., managing resources of a system)** (column 1, lines 11-15) **comprising:** performing I/O tasks (i.e., **processing data**) (column 1, lines 65-68); measuring real-time errors caused by exhaustion of available processor MIPS (i.e., **estimating data processing complexity**) (column 2, lines 1-5); **and** changing data transfer rates to reduce MIPS consumption (i.e., **reducing data processing complexity**) **when the** measure of real-time errors (i.e., **estimated complexity**) **exceeds a threshold** (column 2, lines 10-14).

7. Regarding Claim 17, in addition to the elements cited above apropos of Claim 1, Cox further discloses a multi-function I/O subsystem (i.e., **performing a plurality of system functions on data**) (column 1, lines 65-67); smoothing the error logging information received from the DSP-OS drivers (i.e., **estimating the average complexity of the system functions**) (column 2, lines 31-34); and incrementing a global error count variable (i.e., **summing the estimated average complexity of each of the system functions**) (column 10, line 48-50).

8. Claims 33, 49 and 77 are essentially similar to Claim 1 and are rejected on the same grounds.

9. Claims 63 and 93 are essentially similar to Claim 17 and are rejected on the same grounds.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2, 18, 35, 50, 64, 78 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox in view of Sanders et al. (US Patent 6,704,308).

12. Regarding Claim 2, as shown above apropos of Claim 1, Cox anticipates all elements except the data processing comprising canceling echoes and the complexity reduction comprising bypassing of echo cancellation. Sanders discloses **bypassing echo canceller processing** (column 8, lines 13-16) to make processing resources available for other tasks (column 8, line 66 through column 9, line 3). It would have been obvious to one skilled in the art to apply processing load (i.e., complexity) reduction by bypassing echo cancellation as taught by Sanders to the processor cycle scaling modem taught by Cox for the purpose of reducing MIPS consumption. Cox teaches the general desirability of reducing MIPS consumption (column 2, lines 6-9) independent of the particular reduction using data transfer rate renegotiation. As such, there is suggestion in Cox to seek other methods of reducing MIPS consumption such as the reduction of echo cancellation complexity taught by Sanders.

13. Claims 35, 50 and 78 are essentially similar to Claim 2 and are rejected on the same grounds.

14. Regarding Claim 18, as shown above apropos of Claim 17, Cox anticipates all elements except the data processing comprising canceling echoes and the complexity reduction

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comprising bypassing of echo cancellation. Sanders discloses **bypassing echo canceller processing** (column 8, lines 13-16) to make processing resources available for other tasks (column 8, line 66 through column 9, line 3). It would have been obvious to one skilled in the art to apply processing load (i.e., complexity) reduction by bypassing echo cancellation as taught by Sanders to the processor cycle scaling modem taught by Cox for the purpose of reducing MIPS consumption. Cox teaches the general desirability of reducing MIPS consumption (column 2, lines 6-9) independent of the particular reduction using data transfer rate renegotiation. As such, there is suggestion in Cox to seek other methods of reducing MIPS consumption such as the reduction of echo cancellation complexity taught by Sanders.

15. Claims 64 and 94 are essentially similar to Claim 18 and are rejected on the same grounds.

16. Claims 3, 4, 19, 20, 36, 37, 51, 52, 65, 66, 79, 80, 95 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox in view of Picart (US Patent 5,745,736).

17. Regarding Claim 3, as shown above apropos of Claim 1, Cox anticipates all elements except the data processing comprising canceling echoes and the complexity reduction comprising reducing complexity of echo cancellation adaptation. Picart discloses reducing processing load in a modem by giving low priority to echo cancellation adaptation (i.e., **complexity reduction by reducing complexity of echo cancellation**) (column 2, lines 32-38). Since Cox discloses a modem as an embodiment (column 2, lines 35-38) it would have been obvious to one skilled in the art to apply complexity reduction by reducing complexity of echo cancellation as taught by Picart to the processor cycle scaling modem taught by Cox for the

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purpose of reducing MIPS consumption. Cox teaches the general desirability of reducing MIPS consumption (column 2, lines 6-9) independent of the particular reduction using data transfer rate renegotiation. As such, there is suggestion in Cox to seek other methods of reducing MIPS consumption such as the reduction of echo cancellation complexity taught by Picart.

18. Regarding Claim 4, Picart discloses giving low priority to echo canceller adaptation (column 2, lines 32-38). As such, adaptation is disabled during high demand for processor time because of its low priority.

19. Claims 36, 51 and 79 are essentially similar to Claim 3 and are rejected on the same grounds.

20. Claims 37, 52 and 80 are essentially similar to Claim 4 and are rejected on the same grounds.

21. Regarding Claim 19, as shown above apropos of Claim 17, Cox anticipates all elements except the data processing comprising canceling echoes and the complexity reduction comprising reducing complexity of echo cancellation adaptation. Picart discloses reducing processing load in a modem by giving low priority to echo cancellation adaptation (i.e., **complexity reduction by reducing complexity of echo cancellation**) (column 2, lines 32-38). Since Cox discloses a modem as an embodiment (column 2, lines 35-38) it would have been obvious to one skilled in the art to apply complexity reduction by reducing complexity of echo cancellation as taught by Picart to the processor cycle scaling modem taught by Cox for the purpose of reducing MIPS consumption. Cox teaches the general desirability of reducing MIPS consumption (column 2, lines 6-9) independent of the particular reduction using data transfer rate

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renegotiation. As such, there is suggestion in Cox to seek other methods of reducing MIPS consumption such as the reduction of echo cancellation complexity taught by Picart.

22. Regarding Claim 20, Picart discloses giving low priority to echo canceller adaptation (column 2, lines 32-38). As such, adaptation is disabled during high demand for processor time because of its low priority.

23. Claims 65 and 95 are essentially similar to Claim 19 and are rejected on the same grounds.

24. Claims 66 and 96 are essentially similar to Claim 20 and are rejected on the same grounds.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 703-305-4088. The examiner can normally be reached on Monday through Friday between 8:00 AM and 4:30 PM.

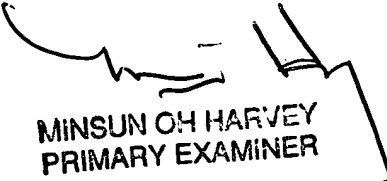
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forrester Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MINSUN OH HARVEY  
PRIMARY EXAMINER